Form PTO-1390 (REV 10-2000) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. 371

ATTORNEY'S DOCKET NUMBER	
1223.0050000	
U.S. APPLICATION NO. (IF KNOWN, SEE 37 C.F.R. § 1.5)	
09/936608	

INTERNATIONAL APPLICATION NO	INTERNATIONAL FILING DATE	PRIORITY DATE CLAIMED
PCT/IB00/00217	March 1, 2000	March 17, 1999

TITLE OF INVENTION

An Adhesive Dispensing Arrangement

APPLICANT(S) FOR DO/EO/US

Goldberg *et al.*

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☒ This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. ☒ This is an express request to begin national examination procedures (35 U.S.C. 371(f)).
4. ☒ The US has been elected by the expiration of 19 months from the priority date (PCT Article 31).
5. ☒ A copy of the International Application as filed (35 U.S.C. 371(c)(2))
   - a. ☒ is attached hereto (required only if not communicated by the International Bureau).
   - b. ☐ has been communicated by the International Bureau.
   - c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☐ An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).
7. ☒ Amendments to the claims of the International application under PCT Article 19 (35 U.S.C. 371(c)(3))
   - a. ☐ are attached hereto (required only if not communicated by the International Bureau).
   - b. ☐ have been communicated by the International Bureau.
   - c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
   - d. ☒ have not been made and will not be made.
8. ☐ An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 372(c)(3)).
9. ☐ An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).
10. ☐ An English language translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).

Items 11. to 16. below concern other document(s) or information included:

11. ☐ An Information Disclosure Statement under 37 C.F.R. 1.97 and 1.98.
12. ☐ An assignment document for recording. A separate cover sheet in compliance with 37 C.F.R. 3.28 and 3.31 is included.
13. ☒ A FIRST preliminary amendment.
    ☐ A SECOND or SUBSEQUENT preliminary amendment.
14. ☐ A substitute specification.
15. ☐ A change of power of attorney and/or address letter.
16. ☒ Other items or information: Authorization To Treat Reply As Incorporating An Extension of Time Under 37 C.F.R. § 1.136(a)(3); and Application Data Sheet.

U.S. APPLICATION NO. (if known, see 37 C.F.R. 1.50)	INTERNATIONAL APPLICATION NO.	ATTORNEY'S DOCKET NUMBER
To Be Assigned 09/936608	PCT/IB00/00217	1223.0050000

17. ☒ The following fees are submitted:

	CALCULATIONS	PTO USE ONLY
Basic National Fee (37 CFR 1.492(a)(1)-(5)): Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO and International Search Report not prepared by the EPO or JPO **$1000.00**		
International preliminary examination fee (37 CFR 1.482) not paid to USPTO but International Search Report prepared by the EPO or JPO **$860.00**		
International preliminary examination fee (37 CFR 1.482) not paid to USPTO but international search fee (37 CFR 1.445(a)(2)) paid to USPTO **$710.00**		
International preliminary examination fee paid to USPTO (37 CFR 1.482) but all claims did not satisfy provisions of PCT Article 33(1)-(4) **$690.00**		
International preliminary examination fee paid to USPTO (37 CFR 1.482) and all claims satisfied provisions of PCT Article 33(2)-(4) ..... **$ 100.00**		
ENTER APPROPRIATE BASIC FEE AMOUNT =	$860.00	
Surcharge of **$130.00** for furnishing the oath or declaration later than ☐ 20 ☐ 30 months from the earliest claimed priority date (37 CFR 1.492(e)).	$	

Claims	Number Filed	Number Extra	Rate		
Total Claims	13 - 20 =		X **$18.00**	$ 0.00	
Independent Claims	1 - 3 =		X **$80.00**	$ 0.00	
Multiple dependent claim(s) (if applicable)			+ **$270.00**	$	
			TOTAL OF ABOVE CALCULATIONS =	$ 0.00	
☒ Applicant claims small entity status. See 37 CFR 1.27. The fees indicated above are reduced by 1/2.				$430.00	
			SUBTOTAL =	$430.00	
Processing fee of $130.00 for furnishing the English translation later than ☐ 20 ☐ 30 months from the earliest claimed priority date (37 CFR 1.492(f)). +				$ 0.00	
			TOTAL NATIONAL FEE =	$ 430.00	
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). **$40.00** per property +				$ 0.00	
			TOTAL FEES ENCLOSED =	$430.00	
				Amount to be refunded:	$
				charged:	$

a. ☒ A check in the amount of $430.00 to cover the above fees is enclosed.

b. ☐ Please charge my Deposit Account No. _____ in the amount of $ _____ to cover the above fees. A duplicate copy of this sheet is enclosed.

c. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 19-0036. A duplicate copy of this sheet is enclosed.

NOTE: Where an appropriate time limit Under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.

SEND ALL CORRESPONDENCE TO:
STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
1100 New York Avenue, NW, Suite 600
Washington, D.C. 20005-3934

SIGNATURE Reg. No. 44,933

for Tracy-Gene G. Durkin
NAME

32,831
REGISTRATION NUMBER

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Goldberg *et al.*

Provisional Appl. No. 09/936,608

Filed: September 14, 2001

For: **An Adhesive Dispensing Arrangement**

Confirmation No.: N/A

Art Unit: *To Be Assigned*

Examiner: *To Be Assigned*

Atty. Docket: 1223.0050000/TGD/RLP

Supplemental Preliminary Amendment

Box: PCT

Commissioner for Patents
Washington, D.C. 20231

Sir:

It is respectfully requested that this Supplemental Preliminary Amendment be entered prior to examination of the application.

This Amendment is provided in the following format:

(A) A clean version of the replacement paragraph along with clear instructions for entry; and

(B) Starting on a separate page, appropriate remarks and arguments.

It is believed that extensions of time are not required beyond those that may otherwise be provided for in documents accompanying this Amendment. However, if additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required therefor are hereby authorized to be charged to our Deposit Account No. 19-0036.

Amendments

In the Specification:

Please enter the following paragraph onto page 1 before "BACKGROUND OF THE INVENTION."

This application claims the benefit of International Application No. PCT/IB00/00217 which was published under PCT Article 21(2) in English.

Remarks

Upon entry of this Amendments, claims 1-11 are pending in the present application. Claim 1 is independent. Applicants have amended the specification to comply with the requirements of 37 C.F.R. § 1.78(a)(2). No new matter has been added by this amendment. Applicants respectfully request that the Examiner give favorable consideration to the claims of the present application. The Examiner is invited to telephone the undersigned representative if an interview might be useful for any reason.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

Tracy-Gene G. Durkin
Attorney for Applicants
Registration No. 32,831

Date: November 14, 2001

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P:\USERS\ATERRY\1223\005\2nd amendment

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Goldberg *et al.*	Confirmation No.: N/A
Appl. No. To Be Assigned (*U.S. National Phase of PCT/IB00/00217; Int'l Filing Date: March 1, 2000)*	Art Unit: *To Be Assigned*
Filed: September 14, 2001	Examiner: *To Be Assigned*
For: **An Adhesive Dispensing Arrangement**	Atty. Docket: 1223.0050000/TGD/RLP

Preliminary Amendment

Box: PCT

Commissioner for Patents
Washington, D.C. 20231

Sir:

It is respectfully requested that this Preliminary Amendment be entered prior to examination of the application.

This Amendment is provided in the following format:

(A) A clean version of each replacement paragraph/section/claim along with clear instructions for entry;

(B) Starting on a separate page, appropriate remarks and arguments; and

(C) Starting on a separate page, a marked-up version entitled: "Version with markings to show changes made."

It is believed that extensions of time are not required beyond those that may otherwise be provided for in documents accompanying this Amendment. However, if additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required therefor are hereby authorized to be charged to our Deposit Account No. 19-0036.

Amendments

In the Claims:

Please substitute the following claim 3, 7, 11, 12 and 13 for the pending claim 3, 7, 11, 12 and 13, respectively.

3. An adhesive dispensing arrangement according to claim 1 in which the applicator means includes at least one absorbent pad secured to the patch along at least one marginal adhering zone, with a non-adhering zone of the pad being interposed between the dispensing container and the backing means for receiving the substance to be dispensed from the container after it has ruptured.

7. An adhesive dispensing arrangement according to claim 4 in which a pair of absorbent pads are provided in the form of adjacent flaps, each flap being formed with outer marginal adhering zones which are secured to the patch and a pair of intermediate non-adhering zones which are interposed between the dispensing container and the peelable backing, with the container being secured to the patch along an intermediate adhering zone located between the outer marginal adhering zones of the flaps.

11. An adhesive dispensing arrangement according to claim 1 in which the adhesive patch and the peelable backing define an outer sealed container within which the dispensing container is housed.

12. An adhesive dispensing arrangement according to claim 1 in which the

adhesive dispensing arrangement is in the form of a sticking plaster or adhesive bandage arrangement in a medical application, with the substance including any form of medicament.

13. An adhesive dispensing arrangement according to claim 1 in which the substance is arranged to treat selected areas, and is chosen from the group including dyestuffs, etchants, chemical treatments, pigments and catalysts.

Remarks

Upon entry of this Amendments, claims 1-13 are pending in the present application. Claim 1 is the sole independent claim. Applicants respectfully request that the Examiner give favorable consideration to the claims of the present application. The Examiner is invited to telephone the undersigned representative if an interview might be useful for any reason.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

Tracy-Gene G. Durkin, Regis. No. 44,933

for Tracy-Gene G. Durkin
Attorney for Applicants
Registration No. 32,831

Date: September 14, 2001

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C:\TEMP\preliminary amendment

Version with markings to show changes made

3. An adhesive dispensing arrangement according to [either one of]claim[s] 1 [or 2] in which the applicator means includes at least one absorbent pad secured to the patch along at least one marginal adhering zone, with a non-adhering zone of the pad being interposed between the dispensing container and the backing means for receiving the substance to be dispensed from the container after it has ruptured.

7. An adhesive dispensing arrangement according to [any one of] claim[s] 4 [to 6] in which a pair of absorbent pads are provided in the form of adjacent flaps, each flap being formed with outer marginal adhering zones which are secured to the patch and a pair of intermediate non-adhering zones which are interposed between the dispensing container and the peelable backing, with the container being secured to the patch along an intermediate adhering zone located between the outer marginal adhering zones of the flaps.

11. An adhesive dispensing arrangement according to [any one of the preceding] claim[s] 1 in which the adhesive patch and the peelable backing define an outer sealed container within which the dispensing container is housed.

12. An adhesive dispensing arrangement according to [any one of the preceding] claim[s] 1 in which the adhesive dispensing arrangement is in the form of a sticking plaster or adhesive bandage arrangement in a medical application, with the substance including any form of medicament.

13. An adhesive dispensing arrangement according to [any one of] claim[s] 1[to 11] in which the substance is arranged to treat selected areas, and is chosen from the group including dyestuffs, etchants, chemical treatments, pigments and catalysts.

2/pats

AN ADHESIVE DISPENSING ARRANGEMENT

BACKGROUND OF THE INVENTION

THIS invention relates to an adhesive dispensing arrangement for dispensing a substance over a particular area for treatment thereof.

Minor wounds and the like are advantageously treated with some form of antiseptic or anti-microbial ointment prior to being covered with a sticking plaster. The ointment is applied from a separate tube or dispenser either directly onto the affected skin area or onto the gauze of the plaster. This process is relatively time consuming, involving removal of the backing strip to reveal the gauze, removal of the cap on the tube of ointment, the application of ointment to the gauze and the subsequent application of the plaster to the skin surrounding the affected area. The treatment is also costly, in that an entire tube of ointment is purchased, only to be used once or twice before the remaining contents of the tube are typically discarded or reach an expiry date.

In addition, often the optimum dosage of ointment is not applied. Over-application generally results in the plaster not sticking properly, and under-application results in the wound not being treated adequately.

SUMMARY OF THE INVENTION

According to the invention there is provided an adhesive dispensing arrangement comprising an adhesive patch for covering an area to be treated, and provided with an adhesive surface for allowing the patch to stick to the area, a peelable backing covering the adhesive surface, a dispensing container sandwiched between the adhesive surface and peelable backing, and housing a substance to be dispensed over the area to be treated, an applicator arranged to facilitate the application of the substance over the area to be treated, and a release agent, the dispensing container being positioned to co-operate with the release agent which is arranged to cause the container to open or rupture on removal of the backing for releasing the substance and allowing it to be dispensed over the area to be treated via the applicator means.

In a preferred form of the invention, the applicator is maintained apart from the substance within the dispensing container and is arranged to be impregnated with the substance only after the container has ruptured, the applicator being interposed between the container and the peelable backing.

Preferably, the applicator means includes at least one absorbent pad secured to the patch along at least one marginal adhering zone, with a non-adhering zone of the pad being interposed between the dispensing container and the backing means for receiving the substance to be dispensed from the container after it has ruptured.

Conveniently, the release agent is adhesively secured to the peelable backing means, whereby the release agent is arranged to be simultaneously peeled away with the backing means to rupture or broach the container.

Advantageously, the release agent comprises at least one aperture or rupturable zone defined in the container, and a removable sealing strip for sealing off the aperture, the sealing strip being arranged to expose the aperture on removal thereof.

Typically, the sealing strip extends between the container and the non-adhering zones of the pad, whereby the pad is arranged temporarily to splay outwardly to allow the sealing strip to exit as it is peeled away from the container.

In one form of the invention, a pair of absorbent pads are provided in the form of adjacent flaps, each flap being formed with outer marginal adhering zones which are secured to the patch and a pair of intermediate non-adhering zones which are interposed between the dispensing container and the peelable backing, with the container being secured to the patch along an intermediate adhering zone located between the outer marginal adhering zones of the flaps.

In an alternative form of the invention, the applicator is housed within the dispensing container, and is impregnated with the substance with which it is stored.

The release agent may comprise a rupturing aid for broaching or removing a rupturable zone on the container so as to provide an opening in the container.

In one form of the invention, the container comprises a rupturable sachet, the rupturing zone comprises a line of weakness arranged to facilitate the tearing away of a topmost wall of the sachet, and the rupturing aid is constituted by the extent to which bonding between the top wall of the sachet and a sealing or cover strip exceeds the line of weakness bonding.

Advantageously, the adhesive patch and the peelable backing define an outer sealed container within which the dispensing container is housed.

Typically, the adhesive dispensing arrangement is in the form of a sticking plaster or adhesive bandage arrangement in a medical application, with the substance including any form of medicament.

In an alternative form of the invention, the substance is arranged to treat selected areas, and is chosen from the group including dyestuffs, etchants, chemical treatments, pigments and catalysts.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 shows an exploded perspective view of a first embodiment of an adhesive dispensing arrangement of the invention;

Figure 2 shows a partly schematic cross-sectional assembled side view of the adhesive dispensing arrangement of Figure 1;

Figure 2A shows a partly schematic cross-sectional side view of the dispensing arrangement of Figure 2 in position on an area to be treated;

Figure 3 shows an end-on view of one configuration of the dispensing arrangement of Figure 1;

Figure 4 shows an end-on view of another configuration of the adhesive dispensing arrangement of Figure 1;

Figure 5 shows an exploded perspective view of a second embodiment of an adhesive dispensing arrangement of the invention; and

Figure 6 shows a partly schematic cross-sectional assembled side view of the adhesive dispensing arrangement of Figure 5.

DESCRIPTION OF EMBODIMENTS

The adhesive dispensing arrangement 10 illustrated in Figures 1 and 2 has as its main components a flexible cover strip or patch 12, a sachet 14, a sachet sealing strip 16, a pair of parallel gauze flaps 18A and 18B, and a peelable backing strip 20. The cover strip 12 has an inner adhesive surface 22 which is uniformly tacky, apart from non-tacky corner zones defining finger-grippable tags 23. The sachet 14 is adhesively mounted to a central rectangular zone or footprint 24 of the tacky surface 22. Marginal rectangular zones 26A and 26B extend on either side of the central zone 24, and provide adhesive purchase for corresponding outer marginal zones 28A and 28B of the respective gauze flaps 18A and 18B. The inner marginal zones 28C of the gauze flaps do not adhere to the adhesive surface 22, but rather overlie the sachet and its sealing strip, as is clearly shown in Figure 2.

The sachet 14 is filled with the suitable material to be dispensed, such as an antiseptic or anti-microbial ointment 30. Opposite minor ends 32A and 32B of the sachet are heat sealed, and the exposable surface 32 of the sachet is formed with a series of regularly spaced apertures 34 through which the ointment 30 may be dispensed. The sachet sealing strip 16 is formed with a central sachet sealing segment 16A, the underside of which is tacky for releasably sealing off the apertures 34 to provide a protective sealed environment for the ointment 30. The sachet sealing strip is also provided with intermediate bridging segments 16B which together correspond to the

difference in length between the sachet 14 and the cover strip 12. Outer tag segments 16C protrude beyond the side edges of the cover strip 12.

The top side of the central sealing segment 16A, on which the inner marginal zones 28C of the flaps rest, is non-adhering. The entire underside of the peelable backing strip 20 is mildly adhering, to the extent that a continuous outer peripheral seal is provided between the cover strip 12 and the peelable backing strip 20, so that the intermediate sachet 14, sachet sealing strip 16 and gauze strips 18A and 18B are protected against the ingress of dirt and other contaminants, as well as the possible ingress of moisture. Likewise, the outer peripheral seal prevents the egress of the aforementioned sandwiched components or their constituents. The undersides of the intermediate segments 16B adhere mildly to the adhesive surface 22, whilst the top sides of the intermediate and/or outer segments 16B and 16C are arranged to adhere relatively strongly to the peelable backing strip 20. To this end, the outer segments 16C may be folded over to the top side of the peelable backing strip in the manner illustrated in Figure 4 to obtain additional purchase. In summary, the combined adhesion of the sachet sealing strip 16 to the peelable backing strip is greater than the combined adhesion of the sealing strip 16 both to the cover strip 12 and to the exposable surface 32 of the sachet.

The dispensing plaster is used in the following manner. The peelable backing strip is first removed by gripping adjacent non-adhering corner tags 23 and 20A and pulling them apart from one another. The sachet sealing strip 16 is carried with the backing strip as it is peeled away by virtue of the aforementioned stronger bond that it has with the backing strip 20. The apertures 34 are successively exposed as the sachet sealing strip 16 is removed, with the central portion of segment 16A of the sealing strip being pulled through the ever-widening gap 36 between the gauze flaps 18A and 18B as their central non-adhering portions lift and separate. The gauze flaps 18A and 18B revert to a substantially flattened condition after removal of the

backing strip 20 and the accompanying sachet sealing strip 16 to at least partly cover the exposed sachet apertures 34.

The remaining assembly comprising the cover strip, the newly vented or ruptured sachet 32 and the gauze flaps 18A and 18B are now ready for application. At this stage, an initial release of ointment 30 or the like into the overlying gauze flaps 18A and 18B may commence. As is shown in Figure 2A, the assembly 37, which essentially resembles a modified gauze sticking plaster, is applied to the affected area, with the gauze flaps 18A and 18B covering the wound or affected area 48A and the tacky surface 22 of the cover strip adhering to the surrounding skin 48B. Slight finger pressure on the exposed surface 50 of the cover strip 12 will cause further dispensing of the ointment 30 in the sachet through the apertures 34 for infusion into the gauze flaps 18A and 18B and ultimate treating contact with the wound. Even spacing of the apertures 34 ensures an evenly spread infusion of the ointment into the gauze flaps 18A and 18B.

In medical applications, the substance to be dispensed is not limited to an ointment, but may be more free-flowing and liquid in form. Typical medical preparations may include anti-microbial, antibacterial, antiviral and antiseptic agents, as well as antibiotics and anti-fungal agents. The substances may also include corticosteroids either singularly or with anti-infective agents, local anaesthetic agents and anti-psoriatic preparations. Salicylic acid, silicone gel, and anti-inflammatory agents may also be incorporated. The contents of the sachet may also include vitamin derivatives, hormones, hair growth stimulants, emolients and protectives, as well as anti-histamines and anti-metabolites. In a particular embodiment, the substance to be dispensed includes Bactroban®, a topical ointment made by SmithKline Beecham, a preparation of 2 grams of mupirocin in 100 grams of a water soluble base.

In the case of non-medical general purpose application, the cover strip may be of a more robust construction, and the substance to be dispensed may include, *inter alia*, a chemical, a dye, a pigment or a catalyst. If the substance to be dispensed has aggressive properties, or is extremely fluid, the sealing strip 16 may be omitted from the assembly, and suitable rupturing zones may be formed in place of the apertures 34. These rupturing zones remain intact under conditions of normal storage and handling, but are then encouraged to rupture subsequent to placement of the cover strip onto the surface to be treated. Rupturing of the sachet may be induced by additional pressure on the outer surface 50 of the cover strip after it has been stuck onto the area. The sachet sealing strip 16 may be replaced by an appropriate length of cord or other rupture-inducing means extending into and anchored within the sachet for at least initiating rupturing of the sachet along a weakened zone.

In one form of the invention, the sealing strip 16 or other contents release means may be made to operate independently of the peelable backing strip 20 For example, the cover strip may be positioned over the area to be treated with the sachet intact, after which the sealing strip or the like is removed so as to rupture the sachet and begin the dispensing process.

It will be appreciated that the shape and orientation of the various components described above is almost unlimited, and that a single gauze flap may be used in place of a pair of flaps. In a still further modification, a single gauze pad bridges the sachet transversely, and is adhesively anchored to both of the marginal zones 26A with the sachet sealing strip 16 being removed by pulling it along its axis in the direction of arrow 52. In this case, the strip may be at least twice as long as the sachet, and folded double, with the upper free end of the strip being gripped to promote a peeling effect.

In a still further variation, the gauze and the sachet may contain different substances, which, when mixed on rupturing to the sachet, react to cause the

desired effect on the surface to be treated. More than one sachet, or a multi-compartment sachet may also be used, each rupturable compartment containing miscible substances.

In Figure 3, an end-on view of the end face of an assembled adhesive dispensing arrangement 10 clearly illustrates the protruding outer segment 16C of the sachet sealing strip 16. In this version, the peelable backing strip 20 may be removed independently of the sealing strip 16, as opposed to the previously described Figure 4 version. The backing strip may in this case be a double length folded over strip of the type described above.

Referring now to Figure 5, a second embodiment of an adhesive dispensing arrangement 60 is shown which differs primarily from the first embodiment in that the gauze flaps 18A and 18B of Figure 1 are incorporated into a sachet 62 as a single gauze pad 64. The gauze pad 64 is typically impregnated with the substance to be dispensed, as is the case with paraffin gauze. Both the underside and the top sides of the sachet 62 are adhesively attached to the respective adhesive face 22 of the cover strip 12 and a lower adhesive face of a sachet sealing strip 66. A parting line or zone of weakness 68 runs around a low perimeteral side wall of the sachet 62. The peelable backing strip 20 and the sachet sealing strip 66 co-operate in the same manner as was described with reference to Figure 1. As the backing and cover strips 20 and 22 are peeled away from one another, the bond between the sealing strip 66 and the upper surface of the sachet 62 is sufficient to result in the topmost wall 70 of the sachet being torn away along the parting line 68 so as to expose the impregnated gauze pad 64. The exposed gauze pad 64 and cover strip 12 are then applied to the area to be treated in the manner of a conventional sticking plaster subsequent to the removal of its backing strip.

The assembled dispensing arrangement 60 is shown in Figure 6. It will be appreciated that both the gaps and the material thicknesses in Figures 2 and 6

are not illustrative, but merely serve to indicate more clearly the different components making up the arrangements. In both Figures 2 and 6, the hatched line interfaces are indicative of adhesive bonds existing at the interfaces.

The impregnated gauze pad allows for more even and immediate distribution of the ointment or the like over the wound area. Such immediate distribution could result in the soaked gauze pad inadvertently contacting the skin surrounding the wound or treatment area.

In a still further embodiment of the invention, the sachet sealing strip 66 may be removed completely, with the top wall 70 of the sachet adhering to the underside of the peelable backing strip 20. As was the case with the sealing strip, the adhesion between the backing strip and the top wall 70 of the sachet would be sufficient to cause the top wall of the sachet to tear away completely along the parting line 68 so as to expose the impregnated gauze 64.

Typically, the sachet is manufactured and filled during a separate manufacturing operation, after which it is incorporated with the other components of the dispensing arrangement. A number of advantages are attached to the provision of a separate sachet. Such sachets may be filled with specialized medicaments which are customarily not produced by plaster/adhesive bandage manufacturers. The sachets may then be transported to a specialist plaster or adhesive bandage manufacturer. In addition, where non-uniform conditions of sterility exist, in that the sachets need to be manufactured and filled under more stringent conditions than the manufacture of the adhesive bandages, different production lines having different sterility requirements.

In a still further embodiment, the top wall 70 of the sachet may effectively be constituted by the backing strip itself, with the gauze pad 64 being anchored

directly onto the cover strip 12. In this even simpler version, the cover strip 12 and peelable backing strip 20 in combination effectively provide the sachet within which the gauze pad 64 is sealed. A more rigorous and continuous outer peripheral seal is provided between the cover strip 12 and the backing strip 20 for securely containing the gauze pad 64 and its contents.

A significant advantage of the present invention, and in particular the preferred embodiments in which a separate sachet is provided, is that the sachet constitutes an effective barrier to prevent cross-contamination either from or into the sachet. The substance to be dispensed may be incorporated into this sachet under sterile conditions. Further, the dispensing of the ointment occurs directly after the backing strip has been removed, thereby reducing the chances of contamination. This procedure differs considerably over typically non-sterile conditions in which ointment from a separate potentially contaminating tube is dispensed onto the gauze pad of conventional medical plasters. The outer peripheral tacky zone of the cover strip seals and surrounds the ointment, the gauze pad(s) and the wound, thereby promoting wet wound healing.

CLAIMS

1. An adhesive dispensing arrangement comprising an adhesive patch for covering an area to be treated, and provided with an adhesive surface for allowing the patch to stick to the area, a peelable backing covering the adhesive surface, a dispensing container sandwiched between the adhesive surface and peelable backing, and housing a substance to be dispensed over the area to be treated, an applicator arranged to facilitate the application of the substance over the area to be treated, and a release agent, the dispensing container being positioned to co-operate with the release agent which is arranged to cause the container to open or rupture on removal of the backing for releasing the substance and allowing it to be dispensed over the area to be treated via the applicator means.

2. An adhesive dispensing arrangement according to claim 1 in which the applicator is maintained apart from the substance within the dispensing container and is arranged to be impregnated with the substance only after the container has ruptured, the applicator being interposed between the container and the peelable backing.

3. An adhesive dispensing arrangement according to either one of claims 1 or 2 in which the applicator means includes at least one absorbent pad secured to the patch along at least one marginal adhering zone, with a non-adhering zone of the pad being interposed between the dispensing container and the backing means for receiving the substance to be dispensed from the container after it has ruptured.

4. An adhesive dispensing arrangement according to claim 3 in which the release agent is adhesively secured to the peelable backing means.

whereby the release agent is arranged to be simultaneously peeled away with the backing means to rupture or broach the container.

5. An adhesive dispensing arrangement according to claim 4 in which the release agent comprises at least one aperture or rupturable zone defined in the container, and a removable sealing strip for sealing off the aperture, the sealing strip being arranged to expose the aperture on removal thereof.

6. An adhesive dispensing arrangement according to claim 5 in which the sealing strip extends between the container and the non-adhering zones of the pad, whereby the pad is arranged temporarily to splay outwardly to allow the sealing strip to exit as it is peeled away from the container.

7. An adhesive dispensing arrangement according to any one of claims 4 to 6 in which a pair of absorbent pads are provided in the form of adjacent flaps, each flap being formed with outer marginal adhering zones which are secured to the patch and a pair of intermediate non-adhering zones which are interposed between the dispensing container and the peelable backing, with the container being secured to the patch along an intermediate adhering zone located between the outer marginal adhering zones of the flaps.

8. An adhesive dispensing arrangement according to claim 1 in which the applicator is housed within the dispensing container, and is impregnated with the substance with which it is stored.

9. An adhesive dispensing arrangement according to claim 8 in which the release agent comprises a rupturing aid for broaching or removing a

rupturable zone on the container so as to provide an opening in the container.

10. An adhesive dispensing arrangement according to claim 9 in which the container comprises a rupturable sachet, the rupturing zone comprises a line of weakness arranged to facilitate the tearing away of a topmost wall of the sachet, and the rupturing aid is constituted by the extent to which bonding between the top wall of the sachet and a sealing or cover strip exceeds the line of weakness bonding.

11. An adhesive dispensing arrangement according to any one of the preceding claims in which the adhesive patch and the peelable backing define an outer sealed container within which the dispensing container is housed.

12. An adhesive dispensing arrangement according to any one of the preceding claims in which the adhesive dispensing arrangement is in the form of a sticking plaster or adhesive bandage arrangement in a medical application, with the substance including any form of medicament.

13. An adhesive dispensing arrangement according to any one of claims 1 to 11 in which the substance is arranged to treat selected areas, and is chosen from the group including dyestuffs, etchants, chemical treatments, pigments and catalysts.

FIG 1

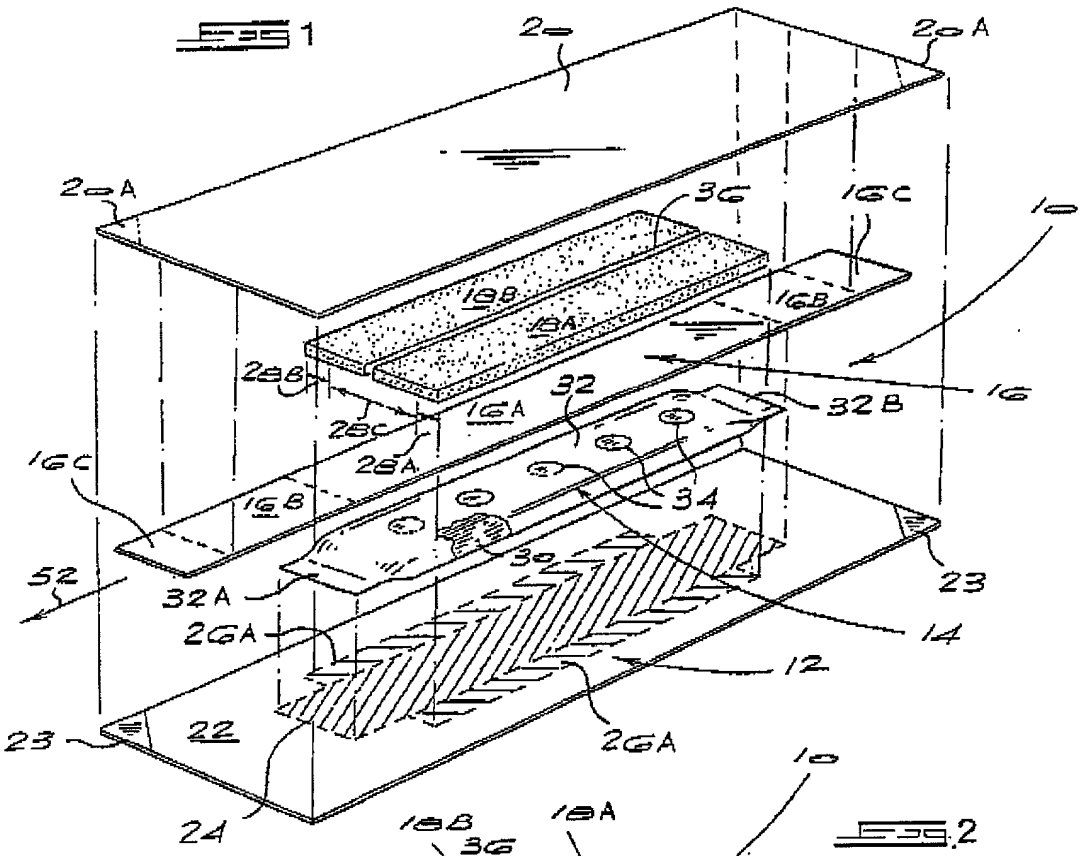


FIG 2

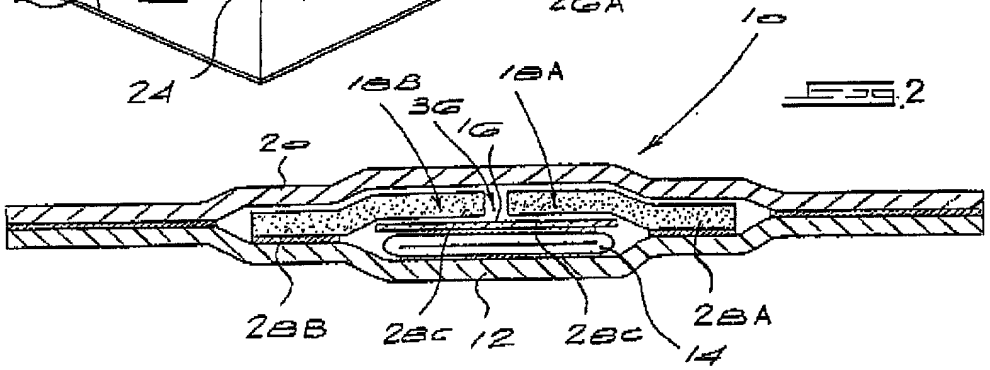


FIG 2A

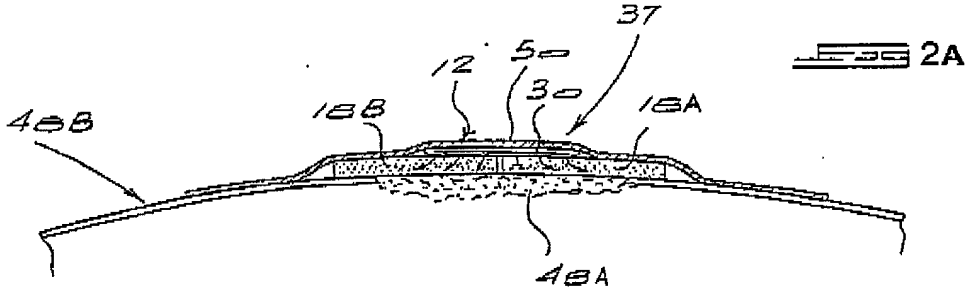


FIG 3

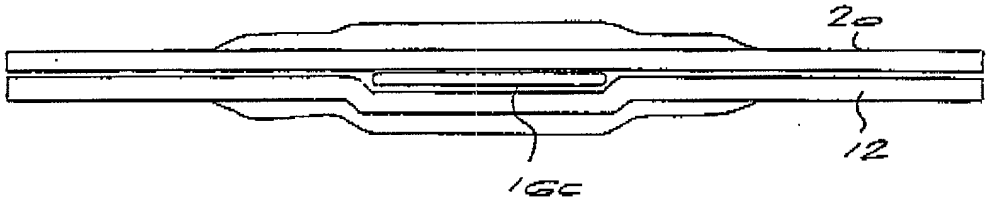


FIG 4

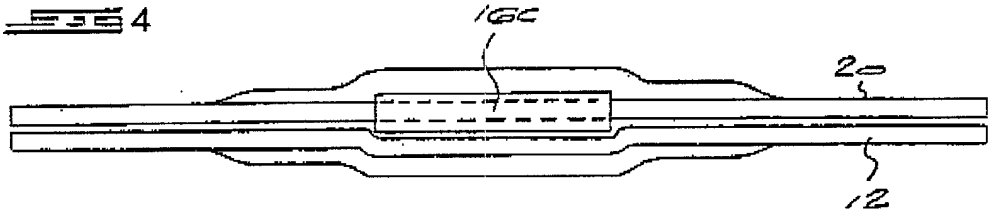


FIG 5

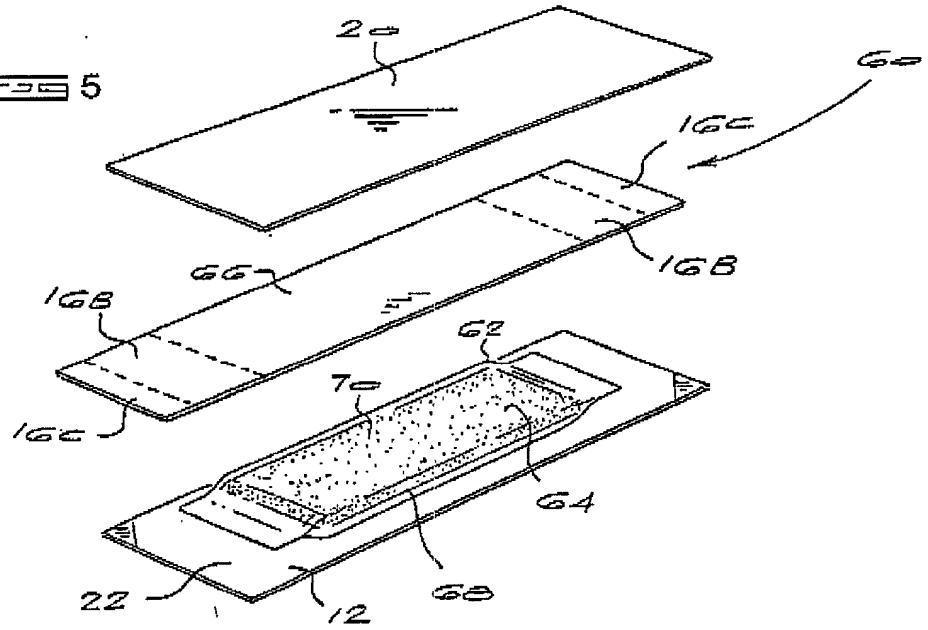
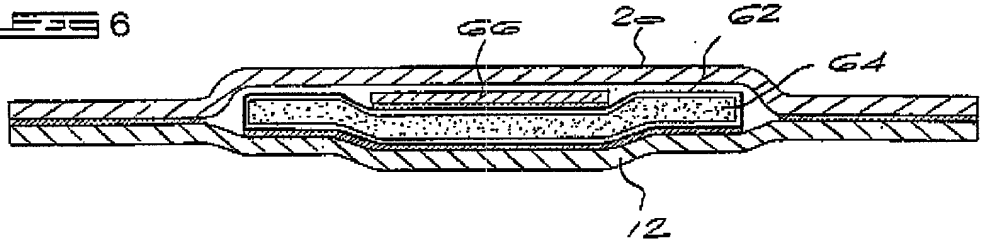


FIG 6



Combined Declaration and Power of Attorney for Patent Application

Docket Number: 1223.0050000

As a below named inventor, I hereby declare that:

My residence, mailing address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter that is claimed and for which a patent is sought on the invention entitled AN ADHESIVE DISPENSING ARRANGEMENT, the specification of which is attached hereto unless the following box is checked:

☒ was filed on September 14, 2001
as United States Application Number or PCT International Application Number 09/936,608; and
was amended on _____ (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information that is material to patentability as defined in 37 C.F.R. § 1.56.

I hereby claim foreign priority benefits under 35 U.S.C. § 119(a)-(d) or § 365(b) of any foreign application(s) for patent or inventor's certificate, or § 365(a) of any PCT international application, which designated at least one country other than the United States listed below, and have also identified below any foreign application for patent or inventor's certificate, or PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s)			Priority Claimed
99/2144	South Africa	17 March 1999	☒ Yes ☐ No
(Application No.)	(Country)	(Day/Month/Year Filed)	
			☐ Yes ☐ No
(Application No.)	(Country)	(Day/Month/Year Filed)	

I hereby claim the benefit under 35 U.S.C. § 119(e) of any United States provisional application(s) listed below.

(Application No.)	(Filing Date)
(Application No.)	(Filing Date)

I hereby claim the benefit under 35 U.S.C. § 120 of any United States application(s), or under § 365(c) of any PCT international application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT international application in the manner provided by the first paragraph of 35 U.S.C. § 112, I acknowledge the duty to disclose information that is material to patentability as defined in 37 C.F.R. § 1.56 that became available between the filing date of the prior application and the national or PCT international filing date of this application.

PCT/IB00/00217	1 March 2000	Pending
(Application No.)	(Filing Date)	(Status - patented, pending, abandoned)
(Application No.)	(Filing Date)	(Status - patented, pending, abandoned)

Appl. No.
Docket No.

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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

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Appl. No.
Docket No.

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SB/DE Rev. 1/2001 mac

(Supply similar information and signature for subsequent joint inventors, if any)